

REMARKS

The Examiner rejected claim 44 under 35 U.S.C. §102 as anticipated by Yamashita. Claims 25, 28, 43, 47, and 50 are rejected under 35 U.S.C. §102 as anticipated by Ziegelmuller. Claim 45 is rejected under 35 U.S.C. §103 as unpatentable over Yamashita in view of Shoji. Claim 46 is rejected under 35 U.S.C. §103 as unpatentable over Yamashita in view of Martin. Claims 26 and 48 are rejected under 35 U.S.C. §103 as unpatentable over Ziegelmuller in view of Yamashita. Claim 27 is rejected under 35 U.S.C. §103 as unpatentable over Ziegelmuller in view of Yamashita further in view of Shoji. Claims 29-31 and 49 are rejected under 35 U.S.C. §103 as unpatentable over Ziegelmuller in view of Martin. Claim 32 is rejected under 35 U.S.C. §103 as unpatentable over Ziegelmuller in view of Tachikawa. Claims 33-34 are rejected under 35 U.S.C. §103 as unpatentable over Ziegelmuller in view of Tachikawa further in view of Tomita.

Claim 25 distinguishes over the primary reference Ziegelmuller alone or combined with the other secondary references for the following reasons. Claim 25 recites a rigid ceramic abrasion element comprising an elongated bar positioned transverse to a running direction of the transport belt to abrade toner located on the transport belt, the materials of the ceramic element having a grain size smaller than or equal to that of the toner particles. Ziegelmuller only shows flexible cleaning blades 12, 14 which are not rigid, are not ceramic, are not an elongated bar, and are not an elongated bar transverse to the running direction. Also there is no disclosure of ceramic

elements having a grain size smaller than or equal to that of the toner particles.

Claim 25 further distinguishes by reciting that the rigid ceramic abrasion element elongated bar has either of at least two opposing facing corner edges by rotating the bar 180° for the abrading. Ziegelmuller makes no mention of this feature.

Claim 25 next distinguishes by reciting a flexible support element for the transport belt provided on a slide of the transport belt opposite the abrasion element. Although in Figure 1, Ziegelmuller shows a curve structure opposite the blades at web cleaning apparatus 130, it is shown to be rigid and not flexible and thus teaches away from the invention. As shown by Applicants' Figure 2, Applicants support is flexible allowing the corner edge of the abrasion bar to indent into the support element. Ziegelmuller teaches directly away from this by not having any bending of his belt at the point of contact of the blades.

Claim 25 next distinguishes by reciting that the abrasion element elongated bar has either at least two opposing corner edges for abrading by rotating the bar 180°.

Secondary references combined with Ziegelmuller would not render the invention of claim 25 obvious since only hindsight reconstruction can result in the combination of so many references to obviate claim 25. Further, it is noted that although Tomita shows a backing support by itself, a combination with primary reference Ziegelmuller is not obvious because Ziegelmuller

teaches away from using a flexible support as recited in claim 25 unless a combination with Tomita would not be obvious.

Although the Japanese '191 was cited for an alumina powdered blade, alumina is not a ceramic unless specially made by heat treating to be a ceramic. Furthermore, it is used against an image carrying member 1 and thus would not be an obvious combination with Ziegelmuller directed to cleaning a transport belt.

As for the grain size of the ceramic element being smaller than or equal to that of toner particles, although Japanese '191 discloses alumina having 0.2 – 2.0 micrometer grain size, this is not a ceramic and also this reference is not related to the toner. Although the Examiner cites another reference Japanese Application '278 for toner size, there is no inter-relationship between the two references teaching that one should make a ceramic powder grain size smaller than the toner grain size.

Although the Examiner cited Martin's cleaning blade having four longitudinal edges, it is for cleaning toner from an imaging surface and thus would not be obvious to combine with Ziegelmuller cleaning off particles from a belt which carries the recording medium.

For all of the above reasons, claim 25 is allowable and not obvious over the art cited.

Dependent claims 26, 28-31, 33-42, and 46 are allowable at least for the reasons noted with respect to claim 25 and also by reciting additional features not suggested.

Allowance of the application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Respectfully submitted,

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